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(19) (CA) **APPLICATION FOR CANADIAN PATENT** (12)

(54) Rub on topical Anesthetic

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(71) Same as inventor

(57) 7 Claims

Notice: This application is as filed and may therefore contain an incomplete specification.



# Abstract

The invention is a topical anesthetic that is meant to be rubbed on the skin where the topical anesthetic medium contains ingredients that in combination with rubbing breaks down or reduces the barriers which slow the penetration of the anesthetic molecule. These ingredients include a skin abrasive such as pumice and/or non-toxic solvents.

## **Rub On Topical Anesthetic**

The invention relates to topical anesthetics. In dentistry and medicine topical anesthetics are placed on the skin so that the anesthetic molecule will soak into and through the skin to numb superficial nerves. The anesthetic is dissolved in a solvent and applied on the skin surface in a fluid, gel or cream medium.

I am a dentist and it has become apparent to me that the anesthetic is taking much too long to soak into and through the skin to anaesthetize the superficial nerves.

In order to speed the absorption, I have tried to rub or massage the anesthetic into the skin. However, even this technique does not allow penetration into the skin to be fast enough or profound enough. After closer analysis, it can be seen that it is quite difficult for the anesthetic to penetrate into the skin due to a number of barriers to the anesthetic.

These barriers include saliva, the mucous in the saliva, skin oils and the skin cells themselves.

In order to provide the patient with optimum comfort more quickly and more profoundly, a new type of topical should be provided to the professions that is not meant to sit on the skin as is currently the case, but that is meant to be massaged on the skin. This new topical anesthetic medium should have added ingredients that, when massaged, will effectively eliminate or weaken the barriers to anesthetic penetration.

These barriers can be overcome or reduced by adding the following to a topical medium which is rubbed on the skin.

The integrity of a layer of saliva and mucous in the saliva could be broken up by massaging the skin with a topical anesthetic medium that contains a non-toxic salivary mucous solvent. A layer of skin oils could also be broken up by massaging a topical anesthetic medium that contains a non-toxic solvent for skin oils. The skin cells can be loosened and some surface cells removed by massaging or rubbing the skin with an abrasive.

An abrasive can be contained in the topical ointment, gel or cream such as pumice, and then the topical medium rubbed on the skin. Or the abrasive can be in the form of an abrasive applicator which has an abrasive surface. Topical anesthetic can be applied to the abrasive applicator. This abrasive applicator can then be used to massage the topical into the skin while loosening and removing surface skin cells.

A topical anesthetic can also be made more efficient by increasing the concentration of anesthetic in the topical medium.

## CLAIMS

I Claim:

#1 An ointment, cream, gel or other medium which contains an anesthetic chemical which is placed topically, or on top of the skin, where: the medium also contains an abrasive so that if the said medium is rubbed on the skin the abrasive will loosen surface skin cells.

#2 A fluid, ointment, cream, gel or other medium which contains an anesthetic chemical which is placed topically, or in other words on top of the skin, where: the medium also contains a non-toxic solvent which is able to dissolve mucous or is able to dissolve skin oils or is able to dissolve both so that either or both the mucous and/or the skin oils will not be able to create a barrier to the migration of the anesthetic to the skin and through the skin.

#3 A fluid, ointment, cream, gel or other medium which contains an anesthetic chemical which is placed topically, or in other words on top of the skin, where: the medium also contains 2 or more non-toxic solvents that individually or in combination are able to dissolve either any or all of the following, mucous, saliva, and/or skin oils so that the mucous and/or the saliva and/or the skin oils will not be able to create a barrier to the migration of the anesthetic to the skin and through the skin.

#4 An applicator with an abrasive surface where a topical anesthetic medium is applied to the said abrasive surface and then the said abrasive surface rubbed on the skin so that the anesthetic is rubbed into the skin while the abrasive surface is loosening and removing some skin cells.

#5 An ointment, cream, gel or other medium which contains an anesthetic chemical as in Claim 1 where the abrasive is pumice or silica or any non-toxic tissue compatible abrasive.

#6 A fluid, ointment, cream, gel or other medium which contains an anesthetic as in Claims 2 and 3 where the non-toxic solvent is any tissue compatible organic or inorganic solvent.

#7 A rubbing topical anesthetic where the anesthetic chemical is mixed to be higher in its concentration within the Rub on topical than is normally found in currently used topical anesthetics.